# BRUHATH BANGALORE MAHANAGARA PALIKE

**Name of the Work :** Improvements to Roads,drains,footbath and park in ward no.08,Bytarayanapura Division (Package includes 11 Works of Rs 1010 lakhs)

**Name of the Agency:** Sri.Pramodh M/s Karthik Enterprises

## REPORT FOR
## EXECUTIVE ENGINEER,
## BYATARAYANAPURA DIVISION
## BBMP, BANGALORE.

## PROJECT MANAGEMENT CONSULTANTS

**TEJUS CONSULTANTS**
CONSULTING ENGINEERS AND DESIGNERS
No.58 MIG, 6th Cross, 3rd Main
1st Stage, Basaveshwaranagar
Bangalore-560079
☎ 080 - 23287532
email: tejusconsultants@gmail.com

**Name of the work: Improvements to Roads,drains,footpath and park in ward no.08,Bytarayanapura Division (Package includes 11 Works of Rs 1010 lakhs)**

| | |
|---|---|
| **Contractor/Agency** | : Sri.Pramodh M/s Karthik Enterprises |
| **Name of the Client** | : Executive Engineer, Byatarayanapura Division BBMP, Bangalore. |
| **Estimated Cost** | : Rs 1010 lakhs |
| **Status of Bill** | : 2nd and part bill |
| **In the Presence of** | : (a) Mohammed Liyaqut Ali Assistant Engineer, BBMP, Bangalore.<br>: (b) H. Ranganath Assistant Executive Engineer, BBMP, Bangalore<br>: (b) Mr. Mahesh, Site Engineer M/s Tejus Consultants<br>: (c) B.B.Umesh, Bangalore. |

| SL. No | Description of the Item | Comments/observation |
|---|---|---|
| 1. | KSRRB M200-13.1. Dismantling of existing structures like culverts, Bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceble material and stacking the serviceble material with all lifts complete as per specifications.<br>II. By mechanical means, A. Cement concrete Grade M-15 & M-20 | Work done up to the billed quantity and quantity is satisfactory |
| 2. | Removing & Refixing Stone slabs of drains and Pointing in C.M(1:3) | Work done up to the billed quantity and quantity is satisfactory |
| 3 | Removing & Resetting of Footbath slab | Work done up to the billed quantity and quantity is satisfactory |
| 4 | KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 | Work done up to the billed quantity and quantity is satisfactory |
| 5 | KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. | Work done up to the billed quantity and quantity is satisfactory |
| 6 | Providing laying plain/ reinforced cement concrete M20 Grade for | Work done up to the billed quantity and |

| | | |
|---|---|---|
| | Box Drain walls of thickness 10cm to 20cm including centering shuttering for work etc. complete as per approved drawing and design MORTH specification No. 1500, 1700, 2200. | quantity is satisfactory |
| 7 | KSRB 4-6.1: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specifcation No. KBS 4.6. | Work done up to the billed quantity and quantity is satisfactory |
| 8 | KSRB 4-6.4: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfaces such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification No.KBS 4.6.2 | Work done up to the billed quantity and quantity is satisfactory |
| 9 | Providing and laying cement concrete using 20mm and downsize granite coarse aggregates and fine aggregates of ready mixed concrete (RMC) for RCC works laid in 15cms thick layers and well compacted vibrating, curing, finishing with necessary cement mortar, with all lead and lifts etc., complete (exclusive of cpost of steel and fabricaton charges) Ready Mixed Cement Concrete M 20 for Raft foundation, Column, Footing, main and secondary beams. | Work done up to the billed quantity and quantity is satisfactory |
| 10 | KSRB - 4.9.2: Providing TMT steel Fe500 reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the engineer-in-charge of the work | Work done up to the billed quantity and quantity is satisfactory |
| 11 | Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 10cms thick | Work done up to the billed quantity and quantity is satisfactory |
| 12 | KSRB 5-9 : Providing chamfering edges to stone slab 2.5 cms. wide as per specifications, (only chamfered length shall be recorded) KBS 5.1. | Work done up to the billed quantity and quantity is satisfactory |
| 13 | Providing One line dressing to granite stone slab/ granite stone masonry as per speciication | Work done up to the billed quantity and quantity is satisfactory |
| 14 | Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | Work done up to the billed quantity and quantity is satisfactory |
| 15 | Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | Work done up to the billed quantity and quantity is satisfactory |
| 16 | Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including formwork, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, | Work done up to the billed quantity and quantity is satisfactory |

TEJUS CONSULTANTS

| | | |
|---|---|---|
| | lead and lift, transportation etc., complete | |
| 17 | KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 | Work done up to the billed quantity and quantity is satisfactory |
| 18 | KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 | Work done up to the billed quantity and quantity is satisfactory |
| 18 | KSRRB M400-19: Construction of Median and island above road level with approved material deposited from borrowpits, spread, sloped and compacted as per Clause 400.7 complete as per specifications. MORTH Specification No.407 (P.No154 of I.No.20.20 in PW,P&IWTD SR 2014-15) | Work done up to the billed quantity and quantity is satisfactory |
| 19 | Providing and laying/fixing cement base, precast, pre polished cement concrete, designer tiles 25mm thick conforming to IS 1237 heavy duty tiles for flooring, treads of steps and landing, laid on a bed of 12mm thick cement mortar 1:3 mis finished with flush pointing using white cement, including cost of materials, including cutting, griding the edge to half/full round wherever required, labour, curing complete as per specification.(P.No.109, I.No.14.62 of PW,P&IWTD S.R 2015-16) | Work done up to the billed quantity and quantity is satisfactory |
| 20 | Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | Work done up to the billed quantity and quantity is satisfactory |
| 21 | Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | Work done up to the billed quantity and quantity is satisfactory |
| 22 | Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including formwork, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete (P.No.25, I.No.5.30 of PW,P&IWTD S.R 2016-17) | Work done up to the billed quantity and quantity is satisfactory |
| 23 | Removing and Resetting of Kerb Stones (P.No.258, I.No.37.57 of PW,P&IWTD S.R 2015-16) | Work done up to the billed quantity and quantity is satisfactory |
| 24 | KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (P.No.179, I.No. 24.1 of PW,P&IWTD SR 2015-16) | Work done up to the billed quantity and quantity is satisfactory |

| | | |
|---|---|---|
| 25 | KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17) | Work done up to the billed quantity and quantity is satisfactory |
| 26 | KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17) | Work done up to the billed quantity and quantity is satisfactory |
| 27 | KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17) | Work done up to the billed quantity and quantity is satisfactory |
| 28 | KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17) | Work done up to the billed quantity and quantity is satisfactory |
| 29 | KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17) | Work done up to the billed quantity and quantity is satisfactory |
| 30 | KSRRB M500-16. Providing and laying dense bituminous macadam 50-75mm compacted thickness with 4.5% VG-30 Bitumen using 40/60 TPH capacity H.M.P, using crushed aggregates of grading II, premixed with VG 30 grade bituminous binder and transporting the hot mix to work site, laying with mechanical paver to the required grade level and alignment rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10, complete in all respects complete as per specification MORTH specification No. 507 (P.No.163 I.No. 21.17.6 of PW,P&IWTD S.R 2016-17) | Work done up to the billed quantity and quantity is satisfactory. |
| 31 | KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17) | Work done up to the billed quantity and quantity is satisfactory |
| 32 | KSRRB M800-13. Providing and laying of hot applied thermoplastic | Work done up to the billed quantity and |

| | | |
|---|---|---|
| | compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17) | quantity is satisfactory |
| 36 | Providing and fixing M S Grating | Work done up to the billed quantity and quantity is satisfactory |
| 37 | KSRRB M2600-5.(iv) Providing and filling joint sealing compound as per drawings and technical specifications with coarse sand and 6 per cent bitumen by weight complete as per specifications MORTH Specification No. 2605(P.No.243, I.No.31.5 of PW,P&IWTD S.R 2016-17) | Work done up to the billed quantity and quantity is satisfactory |
| 39 | KSRRB M800-35. Supply and Installation of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000kg tested in accordance to specification of category A of MORTH Circular No RW/NH/33023/10-97-Do III Dt 11.06.1997. The Height, width and length shall no exceed 50mm, 100mm, and 102mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19mm and height not less than 30 mm) from the body is to be a minimum vakue of 500 kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer with 2 years warranty for the reflectivity from the original manufacturer is mandatory along with necessary test certification from the certified laboratory. Third party test certificates from a reputed test laboratory shall be submitted with seal and signature in originals. (P.No.189, I.No.24.41 of PW,P&IWTD SR 2016-17) | Work done up to the billed quantity and quantity is satisfactory |
| 40 | Manufacturing, Supply & Fixing of Retro- Reflection Road name sign board single Arrow size 1.98X0.9m size made out if wide angle cube corner micro prismatic grade sheeting confirming to IRC 67:2010 & type XI standards of ASTM D 4956-09 specifications and fixed over 2mm thick aluminium sheet back support frame of stainless stell supported by 30NB 1.2mm thick stainless steel pipe all around and 65NB 1.5mm thick pipe vertical post (AISI 202 Grade) firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 30cmx30cmx45cm etc.complete. The information message shal be made out of cut out letters in blue colour transparent overlay film as per IRC 67-2010 Guidelines, 7 years pre-qualification warranty for retro reflective sheeting from the original sheeting manufacturer and a certied copy of three years outdoor exposure report from an independent test lab for the product offered shall be submitted by the contractor. The sign board shall be Retro-Reflective Type XL | Work done up to the billed quantity and quantity is satisfactory |
| 45 | Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17) | Work done up to the billed quantity and quantity is satisfactory |
| 77 | Add cost of Waste Plastic @ 8% of Bitumen Weight | Work done up to the billed quantity and quantity is satisfactory |

TEJUS CONSULTANTS

TEJUS CONSULTANTS

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bangalore.